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(71) Applicant (for all designated States except US): QINETIQ LIMITED [GB/GB]; 85 Buckingham Gate, London SW1E 6PD (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): COOK, John [GB/GB]; Qinetiq Fort Halstead, Sevenoaks, Kent TN14 7BP (GB). CHANDRASEKARAN, Lakshman [GB/GB]; 6 Ashenden Road, Guilford GU2 7JU (GB).

(74) Agent: FARRAR, Christopher, Michael; IP Qinetiq Formalities, Cody Technology Park Room G016, A4 Building Ively Road, Farnborough, Hampshire GU14 0LX (GB).

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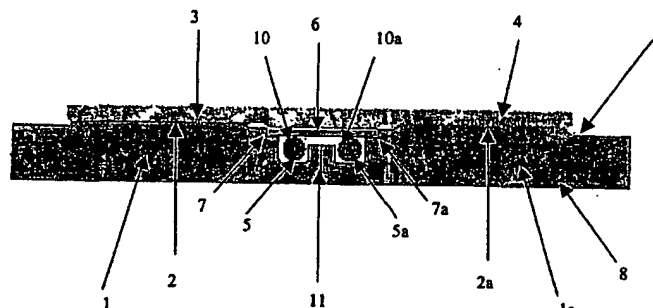
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(54) Title: TEMPERATURE RESPONSIVE SAFETY DEVICES FOR MUNITIONS



(57) Abstract: The invention comprises devices for mitigating the explosive reaction of a munition when it is subject to an external thermal hazard threat. In one arrangement there is device which consists of a connector (4) that is at least in part formed from a shape memory alloy, which typically undergoes large dimensional changes when heated or cooled through a particular transition temperature range. The connector in this invention is designed to form a locking engagement, between two components of a munitions casing at one temperature, but when subjected to external heating through the transition temperature range will deform to allow the connector to disengage and thus release the two joined components (1, 1a), allowing any build up of pressure to be released quickly. If the co-operative parts of the connector and components are threaded portions (2, 2a, 3), then the locking engagement will be capable of being dismantled during normal servicing of the munition. In another arrangement the device is an annulus (24) and is located around a munitions casing (22) such that upon heating through its transition temperature range will cause the annulus to contract, thereby rupturing the munitions casing, allowing any build up of pressure to be released quickly.

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